



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/506,455

DATE: 09/09/2004
TIME: 16:17:57

Input Set : A:\X-15648.ST25.txt
Output Set: N:\CRF4\09092004\J506455.raw

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3 <110> APPLICANT: Beals, John
4 Kuchibhotla, Uma
6 <120> TITLE OF INVENTION: HETEROLOGOUS G-CSF FUSION PROTEINS
8 <130> FILE REFERENCE: X-15648
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/506,455
C--> 10 <141> CURRENT FILING DATE: 2004-08-31
10 <150> PRIOR APPLICATION NUMBER: PCT/US03/03120
11 <151> PRIOR FILING DATE: 2003-02-21
13 <160> NUMBER OF SEQ ID NOS: 66
15 <170> SOFTWARE: PatentIn version 3.2
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 174
19 <212> TYPE: PRT
20 <213> ORGANISM: Artificial Sequence
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23 <223> OTHER INFORMATION: synthetic construct
26 <220> FEATURE:
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28 <222> LOCATION: (17)..(17)
29 <223> OTHER INFORMATION: Xaa at position 17 is Cys, Ala, Leu, Ser, or Glu;
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33 <222> LOCATION: (37)..(37)
34 <223> OTHER INFORMATION: Xaa at position 37 is Ala or Asn;
36 <220> FEATURE:
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38 <222> LOCATION: (38)..(38)
39 <223> OTHER INFORMATION: Xaa at position 38 is Thr, or any other amino acid except Pro;
41 <220> FEATURE:
42 <221> NAME/KEY: MISC_FEATURE
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44 <223> OTHER INFORMATION: Xaa at position 39 is Tyr, Thr, or Ser;
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49 <223> OTHER INFORMATION: Xaa at position 57 is Pro or Val;
51 <220> FEATURE:
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53 <222> LOCATION: (58)..(58)
54 <223> OTHER INFORMATION: Xaa at position 58 is Trp or Asn;
56 <220> FEATURE:
57 <221> NAME/KEY: MISC_FEATURE
58 <222> LOCATION: (59)..(59)

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59 <223> OTHER INFORMATION: Xaa at position 59 is Ala or any other amino acid except Pro;
61 <220> FEATURE:
62 <221> NAME/KEY: MISC_FEATURE
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64 <223> OTHER INFORMATION: Xaa at position 60 is Pro, Thr, Asn, or Ser;
66 <220> FEATURE:
67 <221> NAME/KEY: MISC_FEATURE
68 <222> LOCATION: (61)..(61)
69 <223> OTHER INFORMATION: Xaa at position 61 is Leu, or any other amino acid except
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71 <220> FEATURE:
72 <221> NAME/KEY: MISC_FEATURE
73 <222> LOCATION: (62)..(62)
74 <223> OTHER INFORMATION: Xaa at position 62 is Ser or Thr;
76 <220> FEATURE:
77 <221> NAME/KEY: MISC_FEATURE
78 <222> LOCATION: (63)..(63)
79 <223> OTHER INFORMATION: Xaa at position 63 Ser or Asn;
81 <220> FEATURE:
82 <221> NAME/KEY: MISC_FEATURE
83 <222> LOCATION: (64)..(64)
84 <223> OTHER INFORMATION: Xaa at position 64 is Cys or any other amino acid except Pro;
86 <220> FEATURE:
87 <221> NAME/KEY: MISC_FEATURE
88 <222> LOCATION: (65)..(65)
89 <223> OTHER INFORMATION: Xaa at position 65 is Pro, Ser, or Thr;
91 <220> FEATURE:
92 <221> NAME/KEY: MISC_FEATURE
93 <222> LOCATION: (66)..(66)
94 <223> OTHER INFORMATION: Xaa at position 66 is Ser or Thr;
96 <220> FEATURE:
97 <221> NAME/KEY: MISC_FEATURE
98 <222> LOCATION: (67)..(67)
99 <223> OTHER INFORMATION: Xaa at position 67 is Gln or Asn;
101 <220> FEATURE:
102 <221> NAME/KEY: MISC_FEATURE
103 <222> LOCATION: (68)..(68)
104 <223> OTHER INFORMATION: Xaa at position 68 is Ala or any other amino acid except
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108 <222> LOCATION: (69)..(69)
109 <223> OTHER INFORMATION: Xaa at position 69 is Leu, Thr, or Ser;
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113 <222> LOCATION: (93)..(93)
114 <223> OTHER INFORMATION: Xaa at position 93 is Glu or Asn;
116 <220> FEATURE:
117 <221> NAME/KEY: MISC_FEATURE
118 <222> LOCATION: (94)..(94)
119 <223> OTHER INFORMATION: Xaa at position 94 is Gly or any other amino acid except
Pro;

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129 <223> OTHER INFORMATION: Xaa at position 97 is Pro, Ser, Thr, or Asn;
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132 <221> NAME/KEY: MISC_FEATURE
133 <222> LOCATION: (133)..(133)
134 <223> OTHER INFORMATION: Xaa at position 133 is Thr or Asn;
136 <220> FEATURE:
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138 <222> LOCATION: (134)..(134)
139 <223> OTHER INFORMATION: Xaa at position 134 is Gln or any other amino acid except
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147 <221> NAME/KEY: MISC_FEATURE
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153 <222> LOCATION: (142)..(142)
154 <223> OTHER INFORMATION: Xaa at position 142 is Ser or any other amino acid except
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156 <220> FEATURE:
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158 <222> LOCATION: (143)..(143)
159 <223> OTHER INFORMATION: Xaa at position 143 is Ala, Ser, or Thr.
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163 Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys
164 1 5 10 15
W--> 167 Xaa Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln
168 20 25 30
171 Glu Lys Leu Cys Xaa Xaa Xaa Lys Leu Cys His Pro Glu Glu Leu Val
172 35 40 45
175 Leu Leu Gly His Ser Leu Gly Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
176 50 55 60
179 Xaa Xaa Xaa Xaa Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser
180 65 70 75 80
183 Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Xaa Xaa Xaa Ser
184 85 90 95
187 Xaa Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp
188 100 105 110
191 Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro
192 115 120 125

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195 Ala Leu Gln Pro Xaa Xaa Xaa Ala Met Pro Ala Phe Xaa Xaa Xaa Phe
 196 130 135 140
 199 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe
 200 145 150 155 160
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 204 165 170

207 <210> SEQ ID NO: 2

208 <211> LENGTH: 1044

209 <212> TYPE: DNA

210 <213> ORGANISM: Artificial Sequence

212 <220> FEATURE:

213 <223> OTHER INFORMATION: synthetic construct

215 <400> SEQUENCE: 2

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218 ggacggtcga gggacggggt ctcgaaggac gagttcgct tagagcaagt gagaagatc	120
220 cagggcgatg gcgcagcgct ccagcgaaat ctcgttact ccttcttagt cccgttaccg	180
222 cgtcgcgagg tcgagaagct gtgtgccacc tacaagctgt gccaccccgaa ggagctggtg	240
224 ctcttcgaca cacggtgat gttcgacacg gtggggctcc tcgaccacct gctcgacac	300
226 tctctggca tccctgggc tcccttgagc agctcgacag agcctgtgac agacccgtag	360
228 gggacccgag gggactcgtc gacgcccagc cagggccctgc agctggcagg ctgcttgagc	420
230 caactccata gcgggtcggt ccgggacgtc gaccgtccga cgaactcggt tgaggtatcg	480
232 ggcctttcc tctaccaggc gtccttgacag gcccttggaa ggtatctcccc ggaaaaggag	540
234 atggtccccg aggacgtccg ggaccttccc tagaggccc agttgggtcc caccctggac	600
236 acactgcagc tggacgtcgc cgacgggctc aaccctgggt ggaacctgtg tgacgtcgac	660
238 ctgcagcggc tgtttgcac caccatctgg cagcagatgg aagaactggg aatggccct	720
240 aaacggtggt ggttagaccgt cgtctacctt ttgaccctt accggggagc cctgcagccc	780
242 aaccagaccc ccatgcggc ctgcgcctt gtttccggg acgtcggtt ggtctggcg	840
244 tacggccgga agcggagacg aaagcagcgc cggcaggag ggttcttggt tgccctccat	900
246 ctgcagagct tcgtcgccgc cctgcctccc caggaccaac ggagggtaga cgtctcgac	960
248 ctggaggtgt cgtaccgtt ctttaaggcac ttggccagc ccgacctcca cagcatggcg	1020
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255 <212> TYPE: DNA

256 <213> ORGANISM: Artificial Sequence

258 <220> FEATURE:

259 <223> OTHER INFORMATION: synthetic construct

261 <400> SEQUENCE: 3

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266 cagggcgatg gcgcagcgct ccagcgaaat ctcgttact ccttcttagt cccgttaccg	180
268 cgtcgcgagg tcgagaagct gtgtgccacc tacaagctgt gccaccccgaa ggagctggtg	240
270 ctcttcgaca cacggtgat gttcgacacg gtggggctcc tcgaccacct gctcgacac	300
272 tctctggca tccctgggc tcccttgagc agctcgacag agcctgtgac agacccgtag	360
274 gggacccgag gggactcgtc gacgcccagc cagggccctgc agctggcagg ctgcttgagc	420
276 caactccata gcgggtcggt ccgggacgtc gaccgtccga cgaactcggt tgaggtatcg	480
278 ggcctttcc tctaccaggc gtccttgacag gcccttggaa ggtatctcccc ggaaaaggag	540
280 atggtccccg aggacgtccg ggaccttccc tagaggccc agttgggtcc caccctggac	600
282 acactgcagc tggacgtcgc cgacgggctc aaccctgggt ggaacctgtg tgacgtcgac	660

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284	ctgcagcggc	tgttgcac	caccatctgg	cagcagatgg	aagaactggg	aatggccct	720
286	aaacgggtgt	ggtagaccgt	cgtctacott	cttgaccctt	accggggagc	cctgcagccc	780
288	acccagggtg	ccatgccggc	ttcaactct	acctccggg	acgtcggtg	ggtcccacgg	840
290	tacggccgga	agttgagatg	gaagcagcgc	cgggcaggag	gggtccttgt	tgcctccat	900
292	ctgcagagct	tcgtcgccgc	ccgtcctccc	caggaccaac	ggagggtaga	cgtctcgaag	960
294	ctggaggtgt	cgtaccgcgt	cttaaggcac	cttgcggcagc	ccgacctcca	cagcatggcg	1020
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302	<213>	ORGANISM:	Artificial Sequence				
304	<220>	FEATURE:					
305	<223>	OTHER INFORMATION:	synthetic construct				
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310	ggacggtcga	gggacgggtt	ctcgaaggac	gagtgcct	tagagcaagt	gaggaagatc	120
312	cagggcgatg	gcgcagcgct	ccagcggaat	ctcggtcaact	ccttctaggt	cccgctaccg	180
314	cgtcgcgagg	tcgagaagct	gtgtAACACC	accaagctgt	gccaccccgaa	ggagctggtg	240
316	ctcttcgaca	cattgtggtg	gttcgacacg	gtggggctcc	tcgaccacct	gctcgacac	300
318	tctctggca	tcccctggc	tcccctgagc	agctcgacg	agcctgtgac	agacccgtag	360
320	gggacccgag	gggactcgtc	gacgcccagc	caggccctgc	agctggcagg	ctgcttgagc	420
322	caactccata	gcgggtcggt	ccgggacgtc	gaccgtccga	cgaactcggt	tgaggtatcg	480
324	ggcctttcc	tctaccaggg	gtccctgcag	gccctggaaag	ggatctcccc	ggaaaaggag	540
326	atggtccccg	aggacgtccg	ggaccttccc	tagaggccc	agttgggtcc	caccttggac	600
328	acactgcagc	tggacgtcgc	cgacggggtc	aaccagggt	ggaacctgtg	tgacgtcgac	660
330	ctgcagcggc	tgttgcac	caccatctgg	cagcagatgg	aagaactggg	aatggccct	720
332	aaacgggtgt	ggtagaccgt	cgtctacott	cttgaccctt	accggggagc	cctgcagccc	780
334	acccagggtg	ccatgccggc	tttcgcctt	gtttccggg	acgtcggtg	ggtcccacgg	840
336	tacggccgga	agcggagacg	aaagcagcgc	cgggcaggag	gggtccttgt	tgcctccat	900
338	ctgcagagct	tcgtcgccgc	ccgtcctccc	caggaccaac	ggagggtaga	cgtctcgaag	960
340	ctggaggtgt	cgtaccgcgt	cttaaggcac	cttgcggcagc	ccgacctcca	cagcatggcg	1020
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347	<212>	TYPE:	DNA				
348	<213>	ORGANISM:	Artificial Sequence				
350	<220>	FEATURE:					
351	<223>	OTHER INFORMATION:	synthetic construct				
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356	ggacggtcga	gggacgggtt	ctcgaaggac	gagtgcct	tagagcaagt	gaggaagatc	120
358	cagggcgatg	gcgcagcgct	ccagcggaat	ctcggtcaact	ccttctaggt	cccgctaccg	180
360	cgtcgcgagg	tcgagaagct	gtgtGCCACC	tacaagctgt	gccaccccgaa	ggagctggtg	240
362	ctcttcgaca	cacgggtggat	gttcgacacg	gtggggctcc	tcgaccacct	gctcgacac	300
364	tctctggca	tcccctggc	taacactagc	agctcgacg	agcctgtgac	agacccgtag	360
366	gggacccgat	tggactcctc	gacgcccagc	caggccctgc	agctggcagg	ctgcttgagc	420
368	caactccata	gcgggtcggt	ccgggacgtc	gaccgtccga	cgaactcggt	tgaggtatcg	480
370	ggcctttcc	tctaccaggg	gtccctgcag	gccctggaaag	ggatctcccc	ggaaaaggag	540
372	atggtccccg	aggacgtccg	ggaccttccc	tagaggccc	agttgggtcc	caccttggac	600

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 17, 37, 38, 39, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 93, 94
Seq#:1; Xaa Pos. 95, 97, 133, 134, 135, 141, 142, 143

VERIFICATION SUMMARY

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16

M:341 Repeated in SeqNo=1